In the claims:

1. (Currently Amended) An twelve channel electrocardiograph system comprising:

an acquisition element adapted to be disposed on a chest of a patent, to generate a twelve lead electrocardiograph signal and to be coupled to the patient through a set of relatively short leadwires; and

a hand-held, battery powered portable processing element that is physically separate from the acquisition unit, that is coupled to the acquisition element through a connector cable and that is controlled through a graphical user interface.

- 2. (Original) The electrocardiograph system as in claim 1 wherein the processing element further comprises a display.
- 3. (Original) The electrocardiograph system as in claim 2 wherein the display further comprises a liquid crystal display.
- 4. (Original) The electrocardiograph system as in claim 3 wherein the liquid crystal display further comprises a color or monochrome graphical display with sufficient resolution to display waveforms.
- 5. (Original) The electrocardiograph system as in claim 2 wherein the display further comprises a touch screen interface.
- 6. (Original) The electrocardiograph system as in claim 1 wherein the processing element further comprises a compact

flash card or similar memory expansion slot.

- 7. (Original) The electrocardiograph system as in claim 6 wherein the compact flash expansion slot further comprises a compact flash read only memory disposed in the compact flash card expansion slot.
- 8. (Original) The electrocardiograph system as in claim 1 wherein the processing element further comprises an infrared transceiver for communications.
- 9. (Original) The electrocardiograph system as in claim 1 wherein the processing element further comprises a radio frequency transceiver for communications.
- 10. (Original) The electrocardiograph system as in claim 1 wherein the processing element further comprises an audio recording unit.
- 11. (Original) The electrocardiograph system as in claim 1 wherein the acquisition element further comprises a plurality of signal conditioning circuits.
- 12. (Previously Presented) The electrocardiograph system as in claim 1 wherein the acquisition element further comprises a baseline sway filter.
- 13. (Previously Presented) The electrocardiograph system as in claim 1 wherein the acquisition element further comprises a pacemaker pulse detector adapted to detect pacemaker signals.

14. (Previously Presented) The electrocardiograph system as in claim 1 wherein the acquisition element further comprises analysis and interpretation.